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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,868	09/04/2001	Paul Morgavi	032326-163	4219
21839	7590	03/15/2005	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			RAHIMI, IRAJ A	
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2622

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/914,868	<b>Applicant(s)</b> MORGAVI, PAUL	
	<b>Examiner</b> (Iraj) Alan Rahimi	<b>Art Unit</b> 2622	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-11, 14, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) 12, 13, 15 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

#### Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

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- (k) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

1. The disclosure is objected to because of the following informalities:

Specification is not clearly outlined in the order set forth above for the different section.

Additionally specification is missing page numbers. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim indicates the card medium comprises a storage card and further including a reader that reads information in the card. Such disclosure has not been made in the specification and is unclear how that could be done. Examiner's understanding is that the machine would have the reader not the card medium.

According to the examiner's interpretation both claims would be allowable if rewritten in independent format.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Edgar (US patent 5,587,728).

Regarding claim 1, Cummins discloses a machine for graphic printing on at least one card medium, comprising:  
at least one ink-jet head 16;  
means for controlling the head in order to implement ink-jet printing on the card (controller 14);

However Cummins does not disclose a computer-aided vision device having at least one video camera for dynamic measurement of geometric and/or positioning parameters of the card for communication to the control means; and

means for checking the quality of the printing and modifying ink-jet printing parameters. (column 6, lines 52-57 and column 7, lines 1-8)

Edgar discloses a computer-aided vision device having at least one video camera (optical sensor 122 and 123) for dynamic measurement of geometric and/or positioning parameters of the card for communication to the control means(column 6, lines 52-57 and column 7, lines 1-8);  
and means for checking the quality of the printing and modifying ink-jet printing

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parameters. (Column 6, lines 52-57 and column 7, lines 1-8)

Cummins and Edgar are combinable because they are from the same field of endeavor that is printing images on a substrate like a card.

At the time of invention it would have been obvious to a person ordinary skill in the art to use the optical measurement system of Edgar to provide feedback to the printer.

The motivation to do so would have been to improve image quality (Edgar column 1, lines 66-67).

Therefore it would have been obvious to combine Cummins and Edgar to obtain the invention as specified in claim 1.

Regarding claim 3, Cummins discloses a machine according to Claim 1, wherein the card medium is made of cardboard or paper (identification cards are typically printed on paper), and the inks used are aqueous, phase-change or solvent-based (column 1, lines 25-34).

Regarding claim 14, Cummins discloses a machine according to claim 1, further including means for cross-linking the ink at the end of printing (column 6, lines 66-67).

Regarding claim 17, Cummins discloses a machine according to claim 11, wherein another one of said print heads is a monochrome head (inkjet 16) for marking the card medium.

Regarding claim 18, Cummins discloses a machine according to claim 14, wherein said cross-linking is performed by means of an ultraviolet lamp (column 6, lines 66-67).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Edgar (US patent 5,587,728) and further in view of Amon (US patent 6,306,929).

Regarding claim 2, Cummins in view of Edgar do not disclose a machine according to claim 1, wherein the medium card is made of plastic, and the inks used are capable of being cross-linked by radiation. Amon discloses in column 4, lines 47-65 and column 5, lines 1-10 curing the ink on plastic using UV radiation.

Cummins, Edgar and Amon are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use UV radiation to cure ink on plastic.

The motivation to do so would have been to make the ink cure faster than air-drying.

Therefore it would have been obvious to combine Cummins, Edgar and Amon to obtain the invention as specified in claim 2.

7. Claims 6, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Edgar (US patent 5,587,728) and further in view of McCannel (US patent 6,173,901).



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Regarding claim 6, Cummins in view of Edgar do not disclose a machine according to claim 1, further including a support element for receiving a plurality of cards to be printed and transporting said cards past the head of the machine for continuous printing.

McCannel discloses this limitation in Fig. 1.

Cummins, Edgar and McCannel are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use a flat conveyor to support the card.

The motivation to do so would have been to make available more cards for processing and printing.

Therefore it would have been obvious to combine Cummins, Edgar and McCannel to obtain the invention as specified in claim 6.

Regarding claim 7, McCannel discloses a machine according to Claim 6, wherein the support element comprises a flat conveyor (Fig. 1).

Regarding claim 9, McCannel discloses a machine according to claim 6, wherein the support element is perforated, and includes a suction device to hold the cards while it is moving (Fig. 1; column 3, lines 41-46).

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Edgar (US patent 5,587,728) and further in view of Klinefelter (US patent 6694,884).

Regarding claim 8, Cummins in view of Edgar do not disclose a machine according to Claim 6 wherein the support element comprises a drum. Klinefelter discloses rollers 34 in Fig. 1 to meet this limitation.

Cummins, Edgar and Klinefelter are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use a drum as the support element.

The motivation to do so would have been to reduce the length of the machine by eliminating a long conveyor belt.

Therefore it would have been obvious to combine Cummins, Edgar and Klinefelter to obtain the invention as specified in claim 8.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Edgar (US patent 5,587,728) and further in view of Kobayashi (US patent 5,771,058).

Regarding claim 10, Cummins in view of Edgar do not disclose a machine according to Claim 6 wherein the support element comprises a drum. Kobayashi discloses rollers 34 in Fig. 1 to meet this limitation.

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Cummins, Edgar and Kobayashi are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use a drum as the support element.

The motivation to do so would have been to use the same printing machine to print on the back of the card.

Therefore it would have been obvious to combine Cummins, Edgar and Kobayashi to obtain the invention as specified in claim 10.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Edgar (US patent 5,587,728) and further in view of Greive (US patent 6,189,684).

Regarding claim 11, Cummins in view of Edgar do not disclose a machine according to Claim 6, comprising a number of print heads aligned along the direction of movement of the support element and facing said support element, at least one of which is a colour print head for printing images of the photographic or coloured type. Greive discloses in column 1, lines 22-31 print heads for color printing.

Cummins, Edgar and Greive are combinable because they are from the same field of endeavor that is printing images on a substrate.

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At the time of invention it would have been obvious to a person ordinary skill in the art to use number of print heads for color printing.

The motivation to do so would have been to use a separate head for each primary color.

Therefore it would have been obvious to combine Cummins, Edgar and Greive to obtain the invention as specified in claim 11.

***Allowable Subject Matter***

11. Claims 12, 13, 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Other Prior Art Cited***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wen et al. (US patent 6,176,574) discloses printing apparatus spraying protective finish.

Moscato et al. (US patent 6,335,978) discloses variable printing system with optical feedback.

Niestrath (US patent 6,478,485) discloses printing on decorative articles.

Stringa (USA patent 6,301,374) discloses method for automatically checking the print quality of a multicolor image.

Bucher et al. (US patent 5,724,437) discloses device for parallel image inspection and ink control on printed product.

***Contact Information***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Iraj) Alan Rahimi whose telephone number is 703-306-3473.

The examiner can normally be reached on Mon.-Fri. 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 703-305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AR

AR  
March 2, 2005

  
EDWARD COLES  
SUPERVISOR, EXAMINER